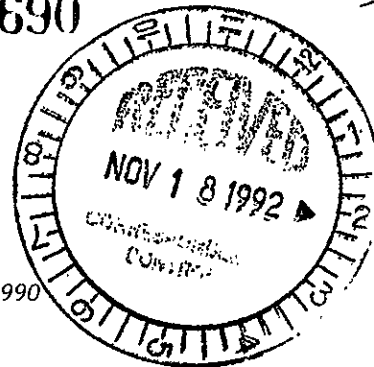


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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

October 14, 1992

9207577

Ms. Pamela S. Innis
United States Environmental Protection Agency
712 Swift Boulevard, Suite 5
Richland, WA 99352

Dear Ms. Innis:

Re: 200 North Source Aggregate Area Management Study
Report Review

Ecology, as a support agency, has completed the review of the 200 North Source Aggregate Area Management Study Report. We have restricted our review mostly to those sections that apply directly to the 200 North Source AAMS. We expect our comments on the generic text in the U, as well as S, T, and Z-Plants, and Purex AAMS's, to be considered for incorporation into the generic text of the 200 North Source AAMS Report. Attached are the chapter specific comments.

Overall, the report is thorough. However, as our review comments indicate, clarification of certain areas and additional technical information is necessary to fulfill the scope of the study. It is recommended that these comments be incorporated into the next draft of this report.

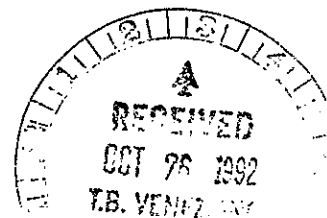
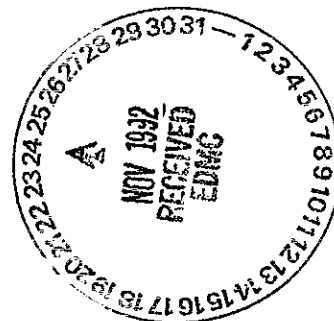
If you have any questions, please do not hesitate to call me at (509)546-4301.

Sincerely,

Dib Goswami
Unit Manager
Nuclear and Mixed Waste Management Program

DG:mf
Enclosure

cc: Steve Wisness, DOE
Darci Teel, Ecology
Larry Goldstein, Ecology
[REDACTED]
Administrative Record (200 North AAMS)



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200 North AAMS Comments

1. Section 2.2, page 2-3, lines 6-10.

Text describes the other uses of the three storage facility buildings of the 200 North Aggregate Area. Describe the duration of the use in each facility.

2. Section 2.3.2.1, page 2-10.

Describe how the transformer oil tank was used, before the current use, as temporary storage.

3. Sections 2.3.3, 2.3.4, and 2.3.8.

Remove these sections since they are absent.

4. Section 2.3.10.1, page 2-15.

Text does not provide any information on the unplanned release. Details on the quantity and type of contamination must be included.

5. Section 2.3.10.2, page 2-15.

Text should include more information on the quantity and type, and other historic data of the contamination.

6. Section 4.1.1.1, page 4-3, lines 15-17.

Text gives the distance to 200W, but not to 200E or 200-IU-6. Incorporate the distances to these areas.

7. Section 4.1.1.2.1, page 4-4, line 11.

Indicates that Figure 4-1 represents only 2/3 of the 200 North Area, but the footnote on Figure 4-1, page 4F-1, indicates the area outlined in red is the 200 North Aggregate Area. Clarify the footnote on Figure 4-1 to clearly identify that the area outlined is only 2/3 of 200 North.

8. Section 4.1.1.2.1, page 4-4, lines 13-15.

Summarize that no radiation levels were above background in 200 North. What is the value of background? Indicate what the background level is and state in this section, or on Figure 4-1, page 4F-1.

9. Section 4.1.1.2.1, page 4-4, lines 17-19.

Identifies that the primary areas of underground contamination are the 216-N-4 and 216-N-6 ponds. However, Figure 4-2, which is

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referenced in lines 17-19, shows areas 212-P and 212-R with underground contamination. Clarify if 212-P & 212-R areas are components of the ponds, and if not, correct the mistake.

10. Section 4.1.1.2.1, page 4-4, lines 25-26.

Denotes surface radiological surveys are performed quarterly at seven of the waste management units. Identify which seven units are surveyed quarterly. A justification explaining why surface radiological surveys are not performed in the other areas may be appropriate.

11. Section 4.1.1.2.2, page 4-4, lines 35-42.

Use data gathered at West Lake for external radiation dose measurement comparison or similarity to 200 West U-Plant and 200 East B-Plant. Since no external radiation measurements are taken at 200 North, it would be expected to furnish the data from U-Plant and B-Plant radiation monitoring, in the form of an additional chart, to Tables 4-3 and 4-4 to allow a comparison of data from all areas - West Lake, U-Plant, and B-Plant.

12. Section 4.1.1.2.3, page 4-5, lines 1-4.

States first time soil samples were taken at Site 83 (216-N-1 Pond) and Site 84 (216-N-6-Pond). This statement contradicts what is said in Section 4.1.1.2.1, page 4-4, lines 18-19. If, 216-N-4 is a primary area of underground contamination, why was no sample taken? Clarify the reason for not sampling.

13. Section 4.1.1.4, page 4-5, line 20.

Following the word "reactor", add (N-reactor) to help clarify.

14. Section 4.1.1.4, page 4-5, lines 25-26.

States Table 4-7 shows on-site sampling at two sites, Site 83 and Site 84. However, line 26 indicates samples were taken at only Site 83. Clarify or add Site 84 to line 26.

15. Section 4.1.1.5, page 4-6, line 21.

Gives the wrong unit of measurement. Change 500 mrep/hr to 500 mrem/hr.

16. Section 4.2.1, page 4-12, line 2.

The usage of the word "bypassed" is incorrect. A more proper word would be "escaped", which implies 'leaking out' as indicated in Webster's II New Riverside University Dictionary.

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17. Section 4.2.2.3, page 4-17, lines 38-40.

The first two sentences repeat one another. Change the second sentence to read, "The three ponds are backfilled with 0.6 to 1.8m (2 to 6ft) of clean soil."

18. Section 4.2.2.4, page 4-18, line 17.

Change Section 8.0 to Section 8.2.3. Also, delete the reference to Section 5.0. This section does not contain any information relating to the data gap.

19. Table 4-13 (Contaminants of Potential Concern), page 4T-13.

Does not list Polychlorinated Biphenyls. Incorporate this contaminant to the list and reflect this in the entire document. Even though Section 4.2.4, page 4-23 lines 6-8, state PCB's are eliminated because they are managed by an active Toxic Substance Control Act, Ecology disagrees. This alone does not justify not sampling and listing. It as a potential contaminant of concern. Section 4.1.2.1, page 4-6, second paragraph, says that drums containing PCB's are stored on the most western pad of the 212-P building, therefore, the likelihood of spills exists. Secondly, Section 4.2.3, page 4-19, lines 7-10, states PCB contamination exists, which contradicts the whole basis for not sampling. Clarify and incorporate PCB's in this document.

20. Section 4.2.4.3.1, page 4-25, lines 15-16.

Explains that values are provided for nine sets of environmental conditions, but further explains to say three ranges of waste ph and three ranges of soil adsorbent material. This totals only six conditions. Clarify the remaining three ranges.

21. Tables 4-17 & 4-18, pages 4T-17a - 4T-18b.

Indicate different half-lives for 241 Am. The correct half-life is 432 years. Correct Table 4-18 to reflect this change.

22. Table 4-17, page 4T-17b.

Incorrectly lists the half-life for 90 Y as 6.41 hours. Correct the table to reflect the half-life as 64.1 hours.

23. Section 4.2.4.5.1, page 4-27, second paragraph.

Beta radiation can also be harmful to the retina of the eyes, which is not addressed here. To reflect this added concern, add the following sentences after the word "tissues" on line 28: "However, beta particles may pose a threat to the retina of the eyes since there is no tissue to absorb the beta energy. Protective eye wear in this case is imperative to minimize the possibility of damaging the eye."

24. Chapter 4 Grammar Errors

- A. Page 4-2, line 37 last word, change "present" to presents.
- B. Page 4-5, line 27, change "yhe" to the.
- C. Page 4-7, line 27, change "At" to In, and add a comma after the word "survey", line 27.
- D. Page 4-7, line 37, change "At" to In.
- E. Page 4-8, line 4, change "At" to In.
- F. Page 4-8, line 9, change "At" to In, and add a comma after the word "survey", line 9.
- G. Page 4-8, line 14, change "At" to In, and add a comma after the word "survey", line 14.
- H. Page 4-8, line 19, change "At" to In, and add a comma after the word "survey", line 19.
- I. Page 4-8, line 24, change "At" to In, and add a comma after the word "survey", line 24.
- J. Page 4-10, line 4, place a comma after the word "fittings".

25. Section 5.2.1, page 5-7, line 31.

Change Section 8.0 to Section 8.2.3.

26. Table 5-1, page 5T-1b.

Delete the word "visit" from the b/footnote.

27. Table 5-1, page 5T-1b.

Fails to show any hazard scores using the Environmental Protection Method, but Section 5.3, page 5-7, lines 5-8, indicate this usage. Delete these sentences from the text, they contain no relevant information and contradict the table.

28. Chapter 5 Grammar Errors

- A. Page 5-2, line 22, add a comma after the number "4.2".
- B. Page 5-7, line 3, delete the word "of" at end of sentence.

29. Section 6.2, page 6-3, line 2, Table 4-23.

Table does not exist. I believe the correct table is Table 4-13. Make correction.

30. Section 6.2.1, page 6-3, line 31.

The Safe Drinking Water Act is 42 U.S.C. 300(f), not 42 U.S.C. 30.0(f). Make correction.

31. Section 6.4.1, page 6-13, line 24.

40 CFR 122 is not the Clean Water Act. The correct regulation is Discharge of Treated Effluent, 40 CFR 122. Change the title and have this change reflected in the preceding paragraph.

32. Table 6-2.

Potential Location-Specific ARAR's, the geological location referencing placement of a new treatment, storage, or disposal within 200 feet of a fault displaced in Holocene time, warrants WAC 173-303-420 as the citing document. WAC 173-303-420 does not exist. The correct WAC reference is WAC 173-303-282, section 6a(i), which states, "all dangerous waste management facilities shall be located such that the dangerous waste management unit boundary is located at least 500 feet from a fault which has had displacement in Holocene times." In accordance with this regulation, the 200 feet originally stated is incorrect and should be 500 feet. Correct the table to reflect WAC 173-303-282 and change 200 feet to 500 feet.

33. Table 6-2.

Potential Location-Specific ARAR's, page 6T-2a, the geological location referencing the 100-year floodplains states that solid and hazardous waste disposal facilities must be designed, built, operated, and maintained to prevent washout. This refers to WAC 173-303-420 as the citing document. WAC 173-303-420 does not exist. The correct WAC is WAC 173-303-282 section 6(A), I, page 50, which states, "no dangerous waste management facility shall be located within the one hundred-year flood plain as indicated in the most current Federal Emergency Management Agency maps." Correct the table to reflect WAC 173-303-282 as the citing document. WAC 173-303-282 section 6a(iii), page 49 may also apply due to applicability to soil erosion.

34. Table 6-2, Potential Location-Specific ARAR's, page 6T-2a,

The surface water location referencing the Wetlands states new hazardous waste disposal facilities are prohibited (including within 200 feet of shoreline). This refers to WAC 173-303-420 as the citing document. WAC 173-303-420 does not exist. I believe the correct WAC is WAC 173-303-282, page 50, second column,

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section (ii), which states, "land-based facilities shall be located such that the dangerous waste management unit boundary is at least one-quarter mile from those areas specified in item (i) above," which is the Wetlands. 200 feet is irrelevant and inappropriate in accordance with this regulation. Correct the table to reflect WAC 173-303-282 and delete 200 feet entirely and substitute 1/4 mile.

35. Table 6-2, Potential Location-Specific ARAR's, page 6T-2c.

The groundwater location referencing the sole source aquifer states new solid and hazardous waste land disposal facilities are prohibited over a sole source aquifer. This refers to WAC 173-303-402 as the citing document. WAC 173-303-402 does not exist. The correct WAC is WAC 173-303-282, page 50, second column, section (B), second paragraph, which states, "no land-based facilities shall be located over an area designated as a sole source aquifer under section 1424(e) of the Federal Safe Drinking Water Act (P.L.93-523)." Correct the table to reflect WAC 173-303-282 as the reference, not WAC 173-303-402.

36. Figure 7-5, page 7F-5.

Uses the symbol P with a circle around it; clarify the meaning with a footnote.

37. Figure 7-6, page 7F-6.

Refers the "100nci/g TRU Soil" to the incorrect location.

38. Section 7.4.7, page 7-15.

In the first paragraph, the beginning sentence and the ending sentence contradict one another. One sentence says VOC do not exist while the other says they exist. Clarify and correct the paragraph. Also, if VOC's do exist, then a change to Section 7.5, page 7-16, line 15, deleting the word "not" must follow. Another section which contradicts the belief that VOC's don't exist in the 200 North Area is Section 9.5, page 9-18, line 36.

39. Page 8-4, line 16.

Misspelled the word "purport", I believe the correct word is support.

40. Page 8-28, line 13.

Place period after the sentence.

41. Page 9-9, line 24.

Change the first word "which" to that.

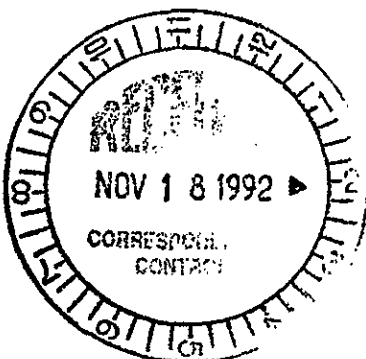
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